DOCUMENT RESUME

ED 228 977 IR 010 639

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TITLE Program Documentation of a Computer Model for Variable Calculations of the Public School Foundation Program. Revised.
INSTITUTION Alaska State Dept. of Education, Juneau. Office of Planning and Research.
PUB DATE [77]
NOTE 25p.; Revised by A. E. Hazelton. A project of the Alaska School Finance Study.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Average Daily Membership; Computer Oriented Programs; *Computer Programs; Cost Estimates; Data Analysis; *Foundation Programs; Information Networks; Online Systems; *Public Schools; Resource Allocation; *Simulation; State Aid
IDENTIFIERS Alaska State Department of Education; *Computer Simulation; University of Alaska

ABSTRACT

This publication documents the revised Alaska Finance Foundation Simulation Program, a computer finance simulation package for the Alaska School District Foundation Formula. The introduction briefly describes the program, which was written in Fortran for a Honeywell '66' computer located at the University of Alaska, Fairbanks, and allows experimentation with the cost to the state of the public schools, by using all of the parameters involved in the cost calculations as variables. Establishment of communications with the central computer and procedures for starting program execution are explained. Then actual procedures for running the program are described, which allow access through any remote terminal connected to the University of Alaska Computer network, through satellite or land lines. Items printed at the terminal during program execution are presented and data input (external data files or run time input), input requirements, problems, and error handling are discussed. An appendix provides additional information on data files, average daily membership (ADM) conversion tables, standard ADM tables, and prime data files. (LMM)

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PROGRAM DOCUMENTATION
of
A Computer Model for Variable Calculations of the Public School Foundation Program

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IR010639

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PREFACE

The initial Alaska School Finance Foundation Simulation Program was developed under contract with the Center for Northern Educational Research (CNER) and revised under contract with Dr. T. J. Fullam of the Fairbanks Computer Center. Dr. E. Dean Coon and Mr. Jerry Waddell did the initial exploration into the feasibility of developing the foundation simulation package. While Mr. Waddell and Dr. Coon conceived the program, Dr. T. J. Fullam designed and implemented both the original and revised version of the simulation package. The efforts and expertise of these three gentlemen have created a unique and versatile simulation package to which the Department of Education offers their heartfelt thanks.

A. E. H.

Introduction

The current simulation program offers a number of options not addressed in the original version. Files may be created or eliminated without effecting the original program. The file building capability of the Honeywell TSS offers the user almost unlimited versitility, limited only by the number of llinks assigned to his user I.D.

I. Program overview

The Public School Finance Study Program allows experimentation with the cost to the state of the public schools, by using as variables all of the parameters involved in the cost calculation. By entering appropriate values as the program requests them the user can experiment with projected increases (or decreases) in ADM values, average valuation per ADM, isolation factors, etc. In addition, various selection criteria are built into the program to permit the user to restrict calculations to a named region or district, or to specified types of public school administrative units.

Input to the program consists of two categories: 1) external data files, and 2) run time input from the terminal.

There are five mandated external data files, four containing the ADM to instructional unit conversion tables, and one containing the primary listing of public schools by name, initial ADM values, regional differentials, type codes, and the like. In addition, external data files may be established for specific purposes as long as the records conform to the configuration of the file which they replace.

The second type of input is provided by the user while the program is executing. Requests for specific items are printed on the terminal, and the program then waits for an appropriate reply. Most of the terminal input requests allow two types of responses: 1) the so-called normal response, i.e., the requested value, such as the isolation factor percentage, and 2) special responses. The special responses are single characters which the user types instead of the normal response. These replies cause some alternative action in the program. For example, if the input request is not clear, type a question mark (?), and the program will provide a more detailed explanation of the needed input. All of the responses allowed for any question can be listed by typing the special response A in place of the normal response. Any unrecognized characters merely produce an error message and a request to try again.

In providing a normal response to a request for a percentage or dollar value, do NOT include the percent (%) or dollar ($) sign. A few exceptions do exist, however. If the program specifically states that a new value or percentage change may be entered, a % sign immediately following the value will cause the number to be interpreted as a percentage to be added to or subtracted from the original value in the data file. Otherwise, the entry is treated as a new value. Decimal points in most cases are optional unless a fractional value is being entered. Then, of course, the decimal is required. In waiting for input, the terminal print head or cursor will pause at the end of the request statement until something is entered and the "return" or "new line" key is depressed.

Requests for input from the terminal fall into three categories: 1) ones that are always asked, for example, type codes or the foundation value; 2) requests made only if BIA/REAA region processing is specified by the type codes, e.g., the local equivalency base; and 3) requests made only if city/borough district processing is specified, e.g., the state average valuation per pupil in ADM.

For some input requests (specifically changes to ADM values and to assessed valuation per ADM), a special response may be typed which will cause the program to request new and/or % change values individually for each district and/or region of the specified types. Also, the opportunity to change the regional differentials may be requested. In all of these cases, a second phase of terminal input is required. Each district and/or region name within the specified types is printed, and the program waits for a yes or no reply as to whether the named district/region is to be included. Following an affirmative reply, input is requested for those items for which individual modifications were indicated. Note also, in this second phase of terminal input, NO special responses are permitted.

The following documentation incorporates the most current revisions in the simulation program. Two new input requests have been added, and additional options on two others have been developed. Otherwise, the terminal input phase of the program execution is unchanged. The alteractions permit greater flexibility in selection of the prime data file and permit addressing of experimental values to individual schools (rather than only to districts or regions). All previous capabilities of the program remain.

II. Running the Program

The program executes under the control of the Honeywell GCOS time-sharing system (TSS) and can be accessed through any remote terminal connected to the University of Alaska Computer Network. Before the program can be run, however, it is necessary to establish communications with the central computer in Fairbanks. This is done via the so-called LOGON procedure during which you identify yourself to the computer and give your password. The following descriptions of the LOGON procedure and the LOGOFF procedure, which is used to disconnect the computer link, are derived from the internal system documentation.

A. LOGON Procedure

To sign on to the Honeywell time-sharing (TSS) system, turn the power switch to on and push the carriage return button. The system should respond with a log-on header and then ask for a USERID. Enter the USERID which was issued to you (and depress the carriage return button again). A blot will be provided for your password. Enter your password, push carriage return, and wait for the response systen?. You are now at system level.

If the system does not respond to two carriage returns when you are attempting to log on. depress the control button and the letter c at the same time. Wait a few seconds, then depress the control button and the letter a simultaneously. TSS will respond with the LOGON header and a request for your USERID. Continue by entering your USERID and password as stated in the preceding paragraph.

B. LOGOFF Procedure

There are several ways to get off TSS. Type one of the following commands when you are finished.

1. BYE
2. LOGOFF
3. NEWUSER

The BYE command will check for temporary files and ask what to do with any it finds. If the school finance program does not terminate normally with the RUN COMPLETE message, it is possible you will have a temoprary file 21. It should not be saved, so simply depress RETURN after the TEMPORARY FILE 21 ? message or use the LOGOFF command which does not check for temporary files. THE NEWUSER command will log you off and then immediately issue another connect message and request for another USERID. Use this command if someone is waiting to use the

terminal when you are finished. The LOGOFF sequence also will give you an accounting of the cost of your just-completed session and the total amount of resources allocated to your USERID which have been used to date.

C. Starting Program Execution

To initiate execution of the program type: /FINANCE or (userid)/FINANCE in response to 'System?'. The second response is required when the user is operating under a userid other than the official Department of Education userid. For example, if the user was operating under the userid of EDUCATION he would type in; EDUCATION/FINANCE in response to 'System?'. The terminal would then list additional items for which the user must respond.

III. Terminal Input Description

List of items printed at terminal during program execution:

1. Header line containing title and date and time of run.

   CNER -- PUBLIC SCHOOL FINANCE STUDY PROGRAM DATE: TIME:

2. Run Counter Run 1

3. Header to begin data input

   ENTER DATA (OR ? OR A FOR MORE INFORMATION) --

General information on entering data from a time-sharing terminal:

a) After each request the terminal will pause, waiting for your reply.

b) Type in requested value or codes (either upper or lower case).

c) Depress the RETURN key.

d) For entering numeric values, unless otherwise indicated, the decimal point is optional except where required to show fractional values.

e) Default values are those used by the program if no entry is made before depressing RETURN.

4. The first request for terminal input, following the program header, now asks for the name of the primary data file:

   ENTER NAME OF PRIME DATA FILE:

Following the colon (:), type any valid catalog/file descriptor up to a maximum of 31 characters. This is the Honeywell time-sharing file name for the file containing the list of districts, regions, and subordinate schools along with their ADM values and other information. If the file is stored under the USERID on which you are running the program, it is necessary only to type the file name, for example:

ENTER NAME OF PRIME DATE FILE: EST1978

where EST 1978 is the file containing perhaps the estimated 1978 ADM values. If the file is saved under another USERID, and appropriate file system permissions have been granted, type that USERID, followed by a slash (/), and the file name:

ENTER NAME OF PRIME DATA FILE: FFEDCOON/DATA

The same information applies to the specification of alternate ADM to Instructional Unit conversion table file names (see page 12 of original documentation). For repeated runs with the same primary data file, it is necessary only to enter an asterisk (*) instead of reentering the full data file name each time.

Following the entry for the prime data file name, the terminal input phase of the program proceeds as described in the original (January 1977) documentation.

5. Request for types of public school administrative units to be processed

OF TYPES & CODES:

a. There are four basic types of public school units: City Districts, Borough Districts, Military Bases and Contract Schools, and REAA Regions. These are identified to the program by single code letters C, B, M, and R, respectively. For this input request, key in the number of these types you want to process (single digit from 1 to 4, no decimal point, followed by that number of the one - letter codes. Separate items by spaces. Code letters may be typed in any order.

EXAMPLES: # OF TYPES AND CODES: 3 M B C

OF TYPES & CODES: 1 R

b. Alternate input allows the processing of specific districts or regions. Key in the letter S followed by the appropriate type code and the name of the district or region you want to process. The type code must be the proper one for the named region or district or errors will occur in the calculations. The name must be typed exactly as it is on the data file. Separate items by single spaces.

EXAMPLES: # TYPES & CODES: S B FAIRBANKS

TYPES & CODES: S

In the second example, omission of the type code, and/or name will cause the program to ask for them:

** SPECIAL RESPONSES NOT PERMITTED IN NEXT 2 REQUESTS

ENTER DISTRICT OR REGION NAME:

ENTER ITS TYPE CODE (C, B, M, R):

(See Section IV for discussion of special responses.)

c. A second alternate input causes a list to be produced of the district or region names of a specified type, from which you can select those to be included in the output listing. Key in an asterisk (*) followed by a space and no more than one type code (C, B, M, or R). Ommission of the type code will cause the selection list to include all districts and regions. See item 17 below concerning the selection list.

EXAMPLES: # OF TYPES & CODES: * R

OF TYPES & CODES: *

6. Request for the basic Instructional Unit Allotment

FOUNDATION VALUE:

Enter the desired value, but do not type the dollar sign ($). A decimal point is optional unless a fractional amount is required. The default is $25000. If this value is to be used, simply depress the RETURN key, making no other entry.

EXAMPLES: FOUNDATION VALUE: 29026.75

FOUNDATION VALUE: 27000

7. Request for the isolation factor percentage

ISOLATION FACTOR:

Enter the desired value as a percentage (e.g., 6, NOT .06) but do not type the percent sign (%). A decimal point is optional unless a fractional percentage is to be entered. The default is 5%. If this value is to be used, depress only the RETURN key.

EXAMPLES: ISOLATION FACTOR: .05
(Factor is 5/100 of a percent or .0005)

ISOLATION FACTOR: 6

8. Request to initiate temporary alteraction of ADM values

Do you want to specify changes to ADM values?

a. For purposes of experimentation within the current run, you can cause the original ADM values to be increased or decreased by a percentage amount for schools in all or selected districts and/or change values may be specified types (item 5 above). Separate change values may be specified for each of the three ADM classes: regular, vocational, and special. In the present program implementation, separation of elementary and secondary school ADMs is not possible. Answer Y or YES to this request and the ADM change values will be requested.

ENTER + OR - % CHANGES FOR:

REG ADM:
VOC ADM:
SPEC ADM:

Enter these values as percentages similar to that described in item 7 above. Values may be positive or negative and will be applied uniformly to all schools within the types selected for processing.

b. N or NO or any other response (not starting with Y) will leave original ADM values unchanged during the run.

c. Alternate input will allow separate ADM percentage change values to be specified for each district and/or region of the previously selected types (see item 5 above). If the question is answered with an asterisk (*), a list will be produced from which the district or region names can be selected for ADM alteraction. See item 17 below concerning the selection list.

d. Modification of individual school ADM values. If the response "*" is entered for the DO YOU WANT TO SPECIFY CHANGES FOR ADM VALUES? question, the program lists each district and/or region name, and waits for a response indicating that ADM changes are to be made for that unit. In older versions of the program, the only recognized response after the unit name was Y (or YES). Any other reply caused the unit to be bypassed. It is now possible to respond "*" at this level also. The program will then go a step farther and list each school within the district or region and ask for now OR percent change values for each of the three ADM types. Values may be entered in a manner similar to those for district assessed valuations or regional differentials a percent sign (%) immediately after the number indicates that the value is to be treated as a percent change applied to the original number. No percent sign indicates the number is a new value to replace the original one.

Again, because of the number of potential input requests which must be answered, this capability should be used only with district/region selection. Note that if both ADM changes and BIA or REAA selection for regions are requested, the school name is listed only once. It is then followed by the request:

Treat as:

and the ADM request. Respond R, B, *, or 0 to the "Treat as:" question for REAA, BIA original type, or OMIT, respectively. Use of the 0 response, causes a dummy type code to be written on the intermediate data file, which will not be recongized by the subsequent school selection algorithm in the computation phase of the program.

9. Header for requests for information applying to REAA Regions

REAA/BIA REGION(S) SELECTED--

This statement is printed and the next two requests made only if you specified type R in item 5 above. The requests are for information applicable only to regions.

CAUTION: Considering the number of schools which could be provided in the above lists, it is recommended that the school selection capability be used only in conjunction with DISTRICT/REGION selection. That is, you should respond "*" "R" or "S R (region Name)" to the NUMBER OF TYPES AND CODES question (see page 5 of the original documentation). In either case, the number of regions to be processed can be limited and reduce the number of required inputs.

10. Request for the school subtypes to process

PROCESS:

a. Within some regions there are both REAA and BIA schools. In this request you may specify that either or both are to be included in the entitlement calculations for that region. If, for example, BIA is specified, and a region contains no BIA schools, it will not appear on the output listing. ADM values for all schools, whether selected or not, in a region will be accumulated to determine the proper adm to Instructional Unit conversion table. Key in REAA or BIA to process only those types of schools respectively, or BOTH to include both types.

EXAMPLES: PROCESS: BIA

PROCESS: BOTH

b. Three new responses are now recognized with version 2.1:

*BIA, *REAA, and *BOTH. These replies, beginning with "*", signify that individual selection of the specified school type is to be made. Thus, by entering *BIA, the program will presume that you want to process the REAA schools in the regions AND to select from a list of the BIA schools to be provided, which are to be treated as REAA schools and thereby to be included in the cost calculations. Note carefully that the response BIA means "process only the BIA schools" and that the response *BIA means "select the BIA schools to be treated as, and processed with, the REAA schools."

During the temporary data file write phase (second terminal input phase) of the program, the name of each of the schools of the designated type (the BIAs, continuing the above example) will be listed. After each name, the program will pause, waiting for a response. Type an "R," and the school will be converted, for the current run only, to an REAA school. Any other response will cause the school to retain its original type. Similary, if you had responded "*REAA" to the PROCESS request, following the school name with a "B" causes it to be treated as a BIA school.

CAUTION: Considering the number of school which could be provided in the above lists, it is recommended that the school selection capability be used only in conjunciton with DISTRICT/REGION selection. That is, you should respond "*" "R" or "S R (region name)" to the NUMBER OF TYPES AND CODES question (see page 5 of the original documentation). In either case, the number of regions to be processed can be limited and reduce the number of required inputs.

11. Request for the local equivalency value

LOCAL EQUIV:

Enter a value (no $ sign). The default is $575.

EXAMPLES: LOCAL EQUIV: 600

LOCAL EQUIV: 580.50

12. Header for request applying to city and borough school districts

CITY/BOROUGH DISTRICT(S) SELECTED--

This message is printed only if types B and/or C are specified in item 5 above. Similarly, the following three requests apply to and are made only for city or borough district processing.

13. Request for state average valuation per pupil in ADM.

ST AVE VAL:

a. Enter a value (no $ sign) if it is to be other than the default of $86614.

b. Alternatively, enter the letter P (upper or lower case) and the program will compute the value. The computed result will be based on all district assessed values and regular ADM values regardless of any processing selection criteria which may be specified, and will take into account any modification of these values within the run. In fact, if you request changes to ADM values (item 8) or to assessed valuation (item 15) and do not specify P for this request, the program will print a warning message and will compute a new state average valuation anyway. (Debug flag 4 will override.)

EXAMPLES: ST AVE VAL: 90000

ST AVE VAL: P

14. Request for minimum equalized percentage

MIN EQ %:

This is the minimum level of state support of basic need. Enter a percentage value (no % sign). Default is 95%.

EXAMPLES: MIN EQ %: 93

MIN EQ %: 100

15. Request to initiate change to district assessed valuation per ADM.

ASSESSED VAL/ADM CHG:

a. Enter a positive or negative percentage amount (no % sign) to be added to original assessed values of every district subject to any specified selection criteria.

b. Alternatively enter an asterisk (*), and a list of district names will be provided from which you can select those to be changed individually. See item 18 below concerning the selection list.

EXAMPLES: ASSESSED VAL/ADM CHG: *
(Value will be decreased 8/10 of a percent)

If any changes are requested here, and if P was not specified in item 13 to have the program compute the state average valuation, a warning message will be printed, and the average valuation recomputed.

c. Warning error messages referring to changes in Assessed value per ADM, have been modified appropriately to reference the district or region property value.

d. In conjunction with the change from assessed value per ADM to district or region assessed value in the primary data file, the terminal input request

ASSESSED VALUE/ADM CHG:

has been changed to

ASSESSED VALUE CHG:

the normal response is a prevent change value to be applied to all city or borough districts to be processed.

16. Request to initiate changes to regional differentials

CHANGE REG DIFF VALUES?

Key in YES or NO. If the response is YES, the program will provide a list of district and/or region names (depending upon specifications in item 5 above) from which you can choose those for modification of regional differentials. (See item 18 for details on the selection list.) It is not possible to enter a single percentage change to apply to all regional differentials.

17. Request for Elementary or Secondary schools the form of the request is:

PROCESS ELEM, SEC OR BOTH:

Type in "ELEM," "SEC," or "BOTH" (or simply the first letters: E. S, or B) to select the desired schools. A null response (just a carriage return) is equivalent to "BOTH."

Note that the school selection caused by "SEC" or "ELEM" response to this request occurs only during the computation phase of the program. Other terminal input requests which might lead to listing of individual school names for selection or changing of ADM values, thus will not be affected, that is, all schools, whether secondary or elementary, will be listed. In this way, all necessary ADM values are retained so that corrected district or region totals are obtained for ADM to IU conversion table selection.

Note also that the addition of this request has necessitated a minor change to the primary data file format (see Other Changes section below), and for this reason this request cannot be used on old format files. When running version 2.1 of the program with old format primary data files, you must respond B, Both, or null to this input request or no schools will be selected.

- - - NOTE - - -

The above 17 items constitute the first input phase of the program. Note that there were four cases for which a detailed selection list of district and/or region names would be produced (items 5c, 8c, 15b, and 16). These cases cause a second phase of input to be initiated. The items below consitiute this phase.

18. Instruction header for input phase 2.

NOTE--

EACH DIST/REG WILL NOW BE LISTED. TYPE Y(ES) AFTER THE ONES YOU WANT TO PROCESS AND/OR FOR WHICH YOU WANT TO CHANGE VALUES. NEW VALUES OR % CHANGE ALLOWED FOR ASSESSED VAL/ADM OR REGIONAL DIFFERENTIALS. NO SPECIAL RESPONSES ARE PERMITTED FOR THE FOLLOWING REQUESTS.

a. After each name is printed, the program will wait for your response (Y or YES to include that district or region; N or NO or no entry to exclude it). Note carefully that this response serves one or the other or both of two functions depending upon your previous responses in the first input phase. If you indicated individual district or region selection in item 5, a YES response here will cause the named region to be included in the output listing. With any other response, it will be omitted from the output, but will still contribute to the calculation of the state average valuation per prpil in ADM, if that calculation has been requested.

   If individual selection was not specified previously, a YES response here indicates only that you want to change some value (such as ADM or regional differential) for that district or region (see items 19, 20, and 21), and will not affect inclusion in the output listing.

```
EXAMPLE:  CORDOVA
          CRAIG    Y
          DILLINGHAM    Y
          GALENA
          HOONAH    Y
            .
            .
            .
```

b. The NEW VALUES OR % CHANGE ... message appears only if you requested changes for assessed value/ADM or regional differentials in phase one. (See also items 19 and 20 below.)

c. See Section IV for information on special responses. These responses are not recognized in input phase 2.

d. In order to decrease the data entry time it may be more advantageous to create another prime data file. This is a user option and the decision is left to his discretion.

19. Individual request for ADM change

```
% CHG REG ADM:

      VOC ADM:

      SPEC ADM:
```

These requests are for percentage changes to be applied to regular, vocational, and special ADMs, respectively. Enter value as a percentage (no % sign) for each. If any one of these is not to be changed simply depress RETURN. Percentages are applied individually to each school's ADM values within the district or region.

20. Individual request for assessed value per ADM change

ASS'D VAL/ADM:

As indicated in the messages shown in item 18, either a percentage change or a new value may be entered. New values should be keyed in as they are (no $ sign, decimal point optional unless you need it for a fractional value). Percentage change values (positive or negative) should be entered as percentages followed immediately by % signs to indicate to the program that they are to be interpreted as percentages rather than new values. NOTE that this and the following request (21) are the only two where the percent sign (%) is permitted. The % must follow the number with no intervening spaces. New values and percentage changes may be intermixed.

EXAMPLES: ASS'D VAL/ADM: -2%

ASS'D VAL/ADM: 94012

21. Individual request for regional differential change

REG. DIFF:

Either a percentage change or new value may be entered. For % change, a % sign must follow the number with no intervening spaces. The regional differential is applied to the foundation value as a percentage, i.e., a regional differential of 110.00 means "increase the foundation value (25000) by 10% (25000 x 1.10)." New regional differentials should be entered as percentages (no % sign) of the base value, e.g., 110.00, 126.25, etc. New values and percentage changes may be intermixed.

EXAMPLES OF ALL REQUESTS IN A SELECTION LIST:

```
.
.
.
HYDABURG    Y
     % CHG REG ADM:  5
           VOC ADM:
          SPEC ADM:  2
     ASS'D VAL/ADM:  2%
         REG. DIFF:  101.25

KING COVE    Y
      % CHG REG ADM:
            VOC ADM: 2
           SPEC ADM: 1
      ASS'D VAL/ADM:
          REG. DIFF: 150.00
```

(Voc ADM is listed in prime data file by school)
(Spec Ed ADM is listed in prime data file by district)

22. Request for alternate ADM to instructional unit conversion table names

DO YOU WANT TO USE ALTERNATE ADM TO IU CONVERSION TABLES?

Enter Y(ES or N(O). In the latter case, all the default tables will be used (see appendix). No special responses are recognized except as equivalent to a NO response. If your response is Y, the following four requests are made for the new table file names.

UNDER 1000 TOTAL REG. ADM;
1000 OR OVER TOTAL REG. ADM;
VOCATIONAL ADM;
SPECIAL ADM;

For each of these lines, key in the name of a file containing the appropriate table (see appendix for table format). If the standard table is to be used, simply depress RETURN.

23. Output table

The results are listed by district/region name in the same order as on the original data file. Totals for appropriate values are given, and if city and/or borough districts are included, the state average valuation per pupil in ADM also is printed.

24. Continue request

DO YOU WANT TO MAKE ANOTHER RUN?

If you answer YES (or Y) the program will return to item 2 above and request information for another run. A NO or null response (RETURN only) will cause program execution to end with a RUN COMPLETE message.

IV. Problem and Error Handling

1. Special Responses

The program is designed to be mostly self-explanatory, especially in the first input phase. This is accomplished by allowing so called special responses to the input requests. These special responses are single characters or letters which cause the program to take some some alternate action (such as repeat the previous request, or print the default value for the current request. If the alternate action does not involve repeating a previous request, the current request is repeated following the alternate action. The cycle continues until a normal response is received.

Special responses are recognized by all first phase input requests unless otherwise noted in a terminal message immediately preceding the request. The special responses are not allowed in the second input phase.

EXAMPLES OF SPECIAL RESPONSES ARE:

? A ^

If you type a question mark in answer to a request, the program will print more detail information about the request and the sort of input expected from you. The response, A, will cause a list of all acceptable responses to the request to be printed. An up arrow or carete (^) causes the program to repeat the previous request, useful if you discover a typing error in a previous response. If you discover your responses are hopelessly fouled up or inappropriate, simply type O (letter O or zero) and the run will start over. In order to check the default value that a null response uses, type D.

2. Errors

Following is a list of program error messages with explanations. In general, they are warning-type messages and the program requests input again. Only in the case of an ADM to IU converrion table error is the run aborted.

**ENTRY REQUIRED — You must provide some input to the #TYPE & CODES request.

**ILLEGAL CHARACTER ENTERED--TRY AGAIN — Appears when you key in some response the program does not recognize. Check the documentation for allowed responses and enter an appropriate value or code.

**ENTRY NOT RECOGNIZED--TRY AGAIN — The only permitted normal responses to the PROCESS request under REAA/BIA regions are REAA or BIA or BOTH.

**WARNING--CHANGES TO ADM VALUES (SPECIFIED ABOVE) REQUIRE RECALCULATION OF STATE AVE VAL/ADM — The response P was not given to the ST AVE VAL request after modification to ADM values was specified. Program assumes P unless debug flag 4 is set.

**WARNING--SPECIFICATION OF CHANGE IN ASSESSED VAL/ADM WILL REQUIRE RECALCULATION OF STATE AVERAGE

**WARNING--CHANGES TO ASSESSED VAL/ADM REQUIRE RECOMPUTATION OF STATE AVERAGE — One of these two warning messages appears if changes are requested for district assessed valuations and program computation of state average valuation per pupil in ADM has not previously been specified.

**WHAT? — Program error. If it happens on repeat, contact program maintenance person.

**ADM TABLE ERROR...RUN ABORTED — The program is unable to find an appropriate instructional unit value in the ADM to I.U. conversion table. The table is printed to aid in locating error.

You may also get something similar to the following:

```
***PROG. L # (ERR # 32)
PRW      84
........ 59
ILLEGAL CHAR IN DATA BELOW
ERROR IN COLUMN n OF
XXXnX
TREAT ILLEGAL CHAR AS ZERO
```

The characters XXXXnX are a repeat of the last entry you just keyed in. Column n is in error and the system is treating that character as a zero. If this assumption is not acceptable, use the response to repeat the request. Another error sequence which might arise is:

```
XX
^

FILE CODE 41 ILLEGAL CHAR: CORRECTION=
```

This will occur if, for example, you type a % sign in entering individual ADM change values. The ^ symbol is below the incorrect character. The terminal pauses after the = sign waiting for a correct character. Enter a zero or a decimal point as appropriate.

3. Miscellaneous Notes

In general you can end execution of the program at any time by depressing the "BREAK" key. It does, however, cause problems if you want to make another run right away. If this is the case, type the time sharing command REMC before starting the program again.

The output table requires about 125 columns across, so the program should be run only from terminals with a full 132 character or more carriage.

A debug flag may be set to cause the program to provide extra printout as an aid in solving maintenance problems. The flag is set via a special response to the # OF TYPES & CODES input request as follows:

```
# OF TYPES & CODES:  . n
```

where n is an integer (no decimal point). There must be a space between the . and the number. In general, users should avoid the debug flag as its output is for working with the program code and is not documented here.

APPENDIX

A. DATA FILES

Five permanent data files are used with the program. Four of them contain the ADM to instructional unit conversion tables, and the fifth is the prime data file containing district, region, and school names, ADM values, flags, codes, etc. All files are accessed within the program via the FORTRAN subroutine ATTACH.

B. ADM CONVERSION TABLES

Four tables are expected by the program: Under 1000 total regular ADM, 1000 or more total ADM, vocational ADM, and special ADM. The files are in free format containing 4 entries, separated by spaces, per line up to a maximum of 10 lines. On each line, the first two entries give the lower and upper ADM range bounds, respectively; the third entry give the instructional units allowed for the ADM range; and the fourth entry, normally zero, gives the number of ADM for each instructional unit over the base amount. For example, in the under 1000 total regular ADM table, in the ADM range 81 to 999, the base amount is 6 instructional units (3rd entry) and 18 ADMs are required for each additional I.U. (4th entry).

C. STANDARD ADM TABLES

ADM1A (Districts < 1000 ADM)

0	9	1	0
10	20	2	0
21	32	3	0
33	46	4	0
47	62	5	0
63	80	6	0
81	999	6	18

ADM1B (Districts ≥ 1000 ADM)

0	9	1	0
10	20	2	0
21	32	3	0
33	46	4	0
47	62	5	0
63	80	6	0
81	99	7	0
100	3005	7	19
3006	99999	160	23

ADM2 (Vocational ADM)

5	10	1	0
11	25	2	0
26	40	3	0
41	9999	3	20

ADM3 (Special Ed. ADM)

5	8	1	0
9	15	2	0
16	24	3	0
24	35	4	0
36	9999	4	11

D. PRIME DATA FILE

The prime data file contains two types of records: District and region header records, and school records. Each header record contains the number of school records, immediately following, in that district or region.

DIST/REG RECORD FORMAT

Cols.	Format	Contents
1-30	A30	district or region name
31	A1	type code(one of B.C,M, or
32		blank
33-36	I5	location code(not used at present)
37-43	F7.2	regional differential
44		blank
45	I2	isolation factor flag (0=no isolation)
46-55	F10.0	assessed valuation per ADM
56-62	I7	number of school records following

SCHOOL RECORD FORMAT

Cols.	Format	Contents
1-30	A30	school name
31	A1	type codes (one of 0,1,2,3, or 4)
32		blank
33-36	24K	location code (not used)
37-55		blank
56-62	F7.0	regular ADM
63-69	F7.0	vocational ADM
70-76	F7.0	special ed. ADM

TYPE CODES

B borough districts
C city districts
M military base 7 contract units
R REAA regionals
0 borough district schools
1 city district schools
2 REAA schools
3 BIA schools
4 base & contract schools

The format of the primary data file has been modified slightly. Columns 46 to 55 of the dist/res records now may contain either the total property value of the diatrict or region, or the assessed valuation per ADM. If the Anchorage Borough School District is the first entry in the prime data file, the program an determine by itself which kind of values are present. Otherwise, the program will print a message to the effect that Anchorage is not first, and request the user to enter a code letter designating whether property values or assessed values/ADM are present in the file.

Column 32 of the school records, previously blank, now must contain a flag indicating whether the schoool is elementary or secondary: E or S, respectively.